TNRCC EDUCATOR'S Eco-Link

A Publication of the Texas Natural Resource Conservation Commission *PD-011/95-1*

The TNRCC Educator's Eco-Link

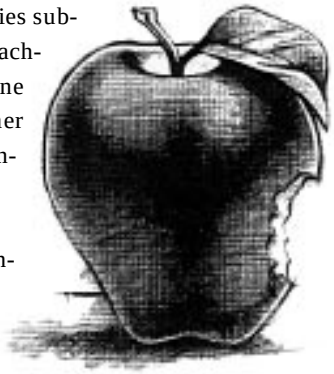
This newsletter replaces the "Recycling is Elementary" newsletter previously published by the TNRCC's Environmental Education Section. The name change reflects the expansion of the scope of the newsletter from recycling to all environmental issues under the TNRCC's authority. It also reflects the TNRCC's mandate to provide supplemental curriculum for grade levels K-12.

As always, we are interested in readers' comments about the newsletter and encourage submission of articles about projects and successes you wish to share with others.

Please contact the newsletter editor with your story ideas, additions or deletions from the mailing list, or to submit an address change: Sue Bumpous, Environmental Education Section, Public Information and Publications Division - MC 194, TNRCC, P.O. Box 13087, Austin TX 78711-3087, (512) 239-0049, FAX (512) 239-0055, or email: sbumpous@smtpgate.tnrcc.state.tx.us

TNRCC Activities from TES Courses

Look on pages 3-5 for classroom activities submitted by teachers during one of the summer "Teaching Environmental Sciences" courses sponsored by TNRCC.



Environmental Education Vision Shared at Regional Conference

The first regional environmental education (EE) conference for the states in EPA Region 6 – that's Arkansas, Louisiana, New Mexico, Oklahoma and Texas – was held in Dallas on September 22nd and 23rd. Over 600 people attended. The "Sharing Our Vision for Environmental Education" conference was hosted by the Texas Natural Resource Conservation Commission (TNRCC) and supported in part by U.S. Environmental Protection Agency (EPA) Region 6. Larry Henry of the TNRCC chaired the conference planning committee.

"We were hoping that people would come here, exchange information, gather some new things, and then find a balance, and find out the importance of partnerships and what they need to do to keep moving environmental education forward," said Henry. "And I think that has happened. We've had a tremendous turnout. We have had the first regional conference to happen in the United States. And it's the first time to bring all five of these states together on environmental education."

Henry was especially pleased with the attendance of several high level policy makers. These included Mike Baker from the EPA Headquarters in Washington, D.C., and Stan Meiburg, Acting Regional Administrator for EPA Region 6. In addition, elected officials from four of the states took the time in their busy schedules to express their support for environmental education -- land commissioners from Texas and New Mexico, and state representatives in the case of Oklahoma and Louisiana. Also sharing their vision on EE were a state representative from Florida and a former state representative from Wisconsin, two states with outstanding EE programs that Region 6 states can use as models.

Meiburg complimented staff and the planning committee for their work on creating this precedent-setting conference. "This conference is important to promote the concept of environmental literacy. Environmental literacy is vital for many reasons, Meiburg said.

"One is the nature of pollution problems is changing. In the past, there were obvious large sources of pollution. Many of these have been addressed, but now our work is focusing more on changing the behavior of individuals. For example, he noted that the largest problem in Dallas is pollution from automobiles. "Education is the most powerful tool we have to change individual behaviors over the long term," Meiburg said.

The second important reason for improving environmental literacy is that it is cheaper to prevent pollution than to clean it up later. He described a specific site in Houston where it would have cost less than 10 percent to prevent pollution than it is ending up costing to clean it up.

Finally, said Meiburg, environmental literacy is needed to promote constructive dialog about the environment that is based on facts. "There is a trend toward environmental policy by sound bites, not sound thinking," he explained. "Your work is vital to the success of environmental education in

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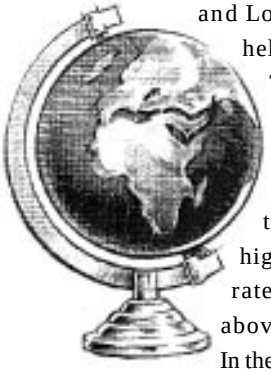
"TES" Courses Offered for Summer 1996

Teaching Environmental Sciences (TES) is a university graduate course offered to grade K-6 teachers. It is sponsored by the Texas Natural Resource Conservation Commission (TNRCC) in partnership with state universities. The TES course is held during summer sessions and covers the three environmental areas for which the TNRCC has regulatory authority: air, water and waste. Course content includes field trips, lectures, and hands-on activities.

Tuition for the course is paid by TNRCC or other sponsors. Teachers pay only a $25 registration fee to hold their place in the class. At the conclusion of the course, teachers write one classroom activity on each environmental area. The activities are then distributed to all teachers in that course and in subsequent TNRCC education programs (including this newsletter), with acknowledgment to the teachers who wrote them.

The course is 45 contact hours and qualifies for both three graduate credit hours at the university and the full 45 hours required for a certificate from the Texas Environmental Education Advisory Committee (TEEAC).

The course was piloted in 1994 at Stephen F. Austin State University (SFASU) campuses in Nacogdoches and Longview. TES classes were held in 1995 at UT-El Paso, Texas Southern University in Houston, and again at SFASU in Longview. On a scale of 1 to 5, with 5 being the highest score, teachers have rated all the courses 4.66 or above.



In the summer of 1996, courses will be held at the following locations:
Lamar University in Beaumont
Texas A&M University at Corpus Christi
University of Houston at Clear Lake
University of Texas at El Paso

The mission of the TES class is to develop a spirit of partnership between the university, teachers, nonprofits, government agencies and industry and to provide teachers with information for their students on career opportunities in environmental fields and to ensure that their students are prepared to take their place as citizens committed to environmental protection. The course mission supports the TNRCC's overall mission to ensure a clean Texas environment through preventing and reducing pollution, consistent with economic growth.

Course objectives are:
- to provide opportunities to increase teachers' understanding of environmental concepts and principles regarding air, water and solid waste, and a clean and healthy environment,
- to identify environmental issues and concerns of the local community,
- to increase awareness by teachers of local resources available to them for use in the classroom, including written materials, speakers and field trip opportunities,
- to provide continuing education for teachers on environmental topics, and
- to inform teachers of the TNRCC's role as a clearinghouse for information on air, water and waste issues.

Teachers who attended the course have given it rave reviews. Here are just a few comments from course evaluations:

- The chance to see the big businesses was a very positive one. It helped me realize more about what really is happening.

- My environmental knowledge has increased unbelievably. I am so much more aware of issues - they jump out from newspapers, magazines and TV.

- I feel as though I learned quite a bit - but one great benefit of having taken the course is the supply of resources I have received for acquiring information for future reference and for the classroom.

- This class gave me ideas for field trips (including the ones we went on) and increased my knowledge (which will reflect on my class).

To be placed on the mailing list to receive information on the Summer 1996 course registration as it becomes available, contact TNRCC's Environmental Education Section at (512) 239-0010.

Environmental Excellence Awarded by Governor Bush

In May of 1995, the TNRCC presented its annual Governor's Environmental Excellence Awards in 13 categories. Some of the awards are for technical achievement by industries, but others are specifically for education and youth programs or for nontechnical achievements by industries, which often includes education programs. Here are selected summaries of 1995 Governor's Awards recipients.

Large Business/Non-Technical

Motorola, Austin

Motorola-Austin has developed an education program that teaches students in Central Texas how pollution such as parking lot runoff can make its way to local waterways. Although nonpoint source pollution creates 80 percent of water quality problems, it can be easily controlled through public awareness.

The "Thunderstorm Machine," the presentation portion of Motorola's "Discovery Pack" program for fourth-grade students, is a seven-foot-tall contained ecosystem that simulates the sights and sounds of a storm with lightning, thunder, and rain over a miniature parking lot. "Pollution" (fluorescent beads) moves through the machine's storm sewers located under the parking lot, into the ground, and eventually into a "make-believe" Town Lake or Edwards Aquifer. The students then use math and science skills to design a water quality filtration system to remove the impurities before they reach the water supply.

After the Thunderstorm presenta-

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Teaching Environmental Sciences Activities

Each teacher provides permission for the TNRCC to publish the activities they submit, in exchange for the TNRCC's or other sponsor's payment of course tuition. Teachers write the activity for the grade level they normally teach, and each activity is correlated to the Texas Education Agency's "Essential Elements for Education" so it can be incorporated into any classroom's curriculum.

Title:
Making Paper

Submitted by:
Clarice Toler, Stephen F. Austin State University, 1994

Purpose:
To encourage recycling / source reduction

Grade Level:
Kindergarten

Essential Elements:
Science

2A - Observe objects

2C - Observe events / changes in environment

The student will be provided opportunities to: develop an emerging awareness of environmental issues, use senses to gain information about objects from the environment emphasizing color, texture, odor, size, shape, and sink / float.

Objective:
To increase student awareness of the need to conserve and recycle paper products.

Focus:
Classroom trash can / walk to various areas in the school to look at trash in our building.

Materials:
toilet tissue
large mixing bowl
clothes dryer line
warm water
measuring cup
measuring spoon
laundry starch
large spoon
baking pan
piece of wire screen that fits in pan
blotting paper
rolling pin

Procedure:
1. Tear about 5 feet of toilet tissue into pieces and place in the mixing bowl. Add a handful of lint from a dryer.

2. Pour in 1 1/2 cups of water and 1 tablespoon of laundry starch. Mix well until you get a soupy pulp.

3. Place the screen in the baking pan. Pour the pulp onto the screen and add another cup of warm water. Spread the pulp evenly.

4. Place one sheet of blotting paper on a table. Lift the screen with the pulp from the pan, letting the water drain off. Put the screen on the blotting paper.

5. Place the other sheet of blotting paper over the screen. Then with the rolling pin, press out the excess water.

6. Flip the blotting paper over so that the screen is on top. Remove the top piece of blotting paper and the screen. Let the handmade paper dry. It will take up to 24 hours.

Discuss reasons for recycling.

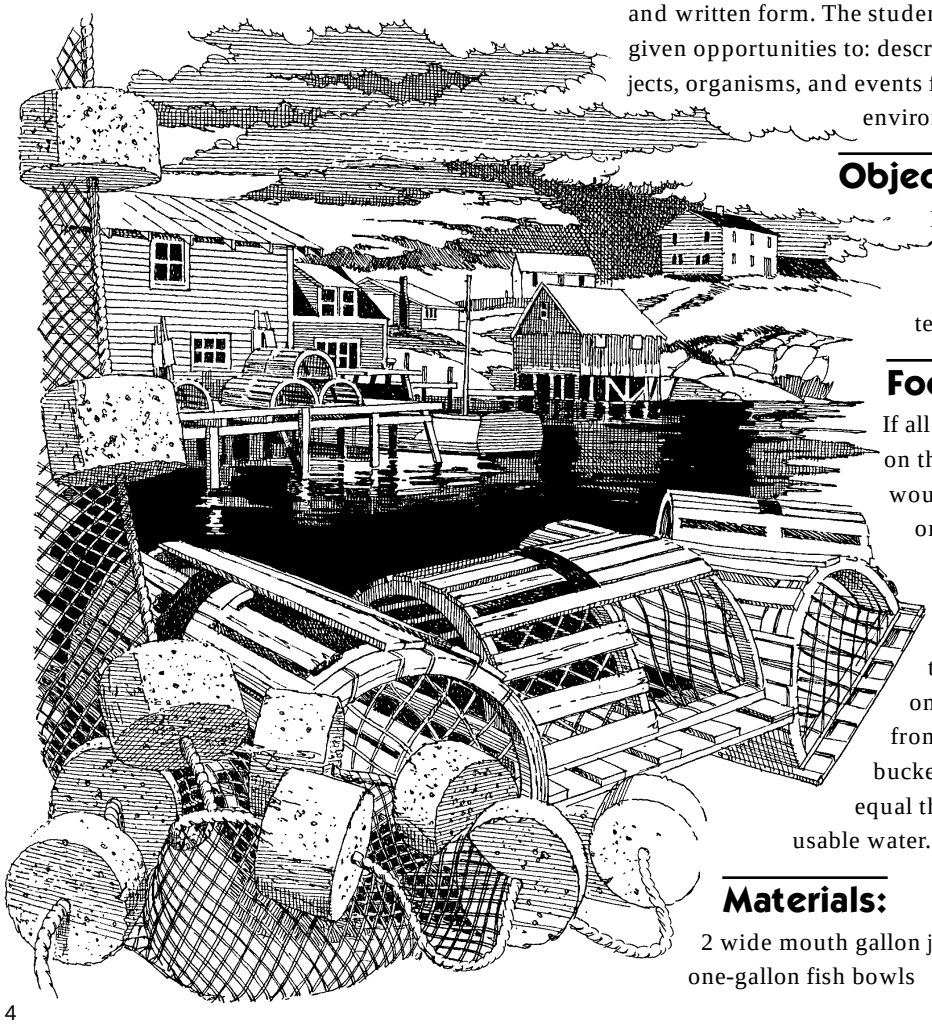
Enrichment:
Experiment with different ingredients in their recycled paper. Some possibilities: pencil shavings, cotton balls, pieces of dried leaves, other kinds of paper.

Source:
Integrated Thematic Units. 1992 copyright. Scholastic, INC.

Title
Troubled Oceans

Submitted by:
Happy Modisette, Stephen F. Austin State University, 1994

Purpose:
The oceans make up 97.2 percent of the total water on our planet and cover 3/4 of the surface of earth (almost three times more area than all the land). The 330 million cubic feet of water in the oceans contain 80 percent of all animal life and 90 percent of all plant life in the world. Illegal dumping of chemicals and other types of wastes by industries destroys many rivers, streams, and even parts of the vast oceans of the world. When chemicals enter the water, fish and water plants are affected, and eventually, people are affected if they eat poisoned fish. Many countries in the world depend on fish as their primary food source.



Grade Level:
2nd grade

Essential Elements:
Acquire data through the senses.
2A: Observe science models
2B: Observe properties
2C: Observe similarities / differences
2D: Observe phenomena
2E: Explore the environment

Classify, order, sequence, data
3B: Classify matter and forces

Communicate data
4B: Describe objects from environment
4C: Name objects from description
4D: Record data, interpret arrangement

Identify / manipulate conditions
9A: Set up & conduct experiments
9C: Recognize changes

The student shall be given opportunities to: classify matter and forces, organisms, actions, and events from the environment according to similarities and difference. Communicate data and information in appropriate oral and written form. The student shall be given opportunities to: describe objects, organisms, and events from the environment.

Objective:
How pollution affects water plants

Focus:
If all the water on the earth would fit into one bucket (show bucket of water to class), one drop from this bucket would equal the fresh usable water.

Materials:
2 wide mouth gallon jars or 2 one-gallon fish bowls
6 healthy water plants (most pet stores have these)
aquarium gravel (enough to cover 3 inches of the bottom of the jars)
vinegar
tablespoon
water

Procedure:
1. This experiment shows the result of dumping chemicals into the lakes, streams, rivers, and oceans of the world.

2. Place 3 inches of gravel in the bottom of two fish bowls.

3. Fill the bowls with water. (let this settle)

4. Make 3 holes in the gravel. Place a plant in each and cover the roots.

5. Label the bowls A and B. Put them near a window for light.

6. Put 4 tablespoons of vinegar in bowl A every day. (This is similar to chemicals dumped in the water.)

7. Do nothing to bowl B.

8. Do this for two weeks. Observe the plants in both bowls daily. Keep a record of what you see in each bowl.

What is the result of our experiment? Discuss.

Enrichment:
1. Using "Troubled Oceans Poster" make copies of the take home poster, and have the students design a poster showing a person doing something about ocean pollution. They should include a caption for the poster that gives a "call to action" and motivates others to be concerned about ocean pollution. Take this home and share with their families.
2. Examine a news article. Who? What? When? Why? Where? In a news article, the main facts are included in the first paragraph, even in the first sentence if possible. Gather several articles and answer questions and add four major points of interest.

Source:
American Teaching Aids, Minneapolis, MN. ATA 8289

Title:
Breathing Easy

Submitted by:
Linda Abbott, Stephen F. Austin State University, 1994

Purpose:
The student will understand that trees and plants produce a lot of the oxygen we breathe.

Grade level:
Second Grade

Essential elements:
Acquire data through the senses.
The student shall be given opportunities to:
(B) observe properties and patterns of objects, organisms, and events in the environment;
(E) explore the environment.

Objectives:
To quickly show students how plants produce oxygen.

Focus:
Hold up a plant and ask students if they believe that plants like this help us breathe.

Materials:
a clear, glass bowl of water (a small aquarium works well)
a glass jar
a few water plants, such as pondweed (may be purchased at pet store)

Background:
The Earth's atmosphere today is a mixture of gases, water vapor, and a variety of solid particles and liquid droplets. In some respects, air differs from place to place around the globe. The air in a tropical rain forest is hot and steamy. People travel to the seaside to enjoy the "salt air." Visitors to the Smokey Mountains in Tennessee view the bluish air. On a cold night in the Arctic the air feels particularly dry and "pure." Dry, filtered air is roughly 78 percent nitrogen, 21 percent oxygen, and one percent other gases. Most samples of natural air contain some water vapor as well. In a hot, steamy jungle, air may contain five percent water vapor, whereas in a dry desert or a cold polar region there may be almost none at all.

Procedure:

1. Place the plants in a deep bowl of water.

2. Fill the glass jar with water by lowering it on its side into the bowl, letting all trapped air bubbles escape.

3. Turn the glass upside down to cover the plants.

4. Leave the plants in a sunny place and watch what happens. You won't have to hold your breath for long. Oxygen bubbles from the plants will start rising toward the surface of the water! Eventually a pocket of oxygen will collect at the top of the jar.

5. Explain to students that plants and trees release oxygen into the air. During the process of making food from carbon dioxide and water, trees and plants give off oxygen. Energy from the sun is used to change the carbon dioxide and water into food and release oxygen. This process is called photosynthesis.

Conclusion:
Cutting down too many trees could leave us "breathless", i.e., with too little oxygen. Have students write about the experiment and tell how it works.

Note to teacher:
Plants need to be healthy and experiment needs to be done in a sunny location.

Source:
Environmental Science, 1984, CBS College Publishing

Air Quality Lessons On-line

Air pollution is a subject that is often difficult to teach in the classroom because it doesn't lend itself easily to hands-on activities. The TNRCC has begun providing on-line access to Texas air quality data and classroom teaching materials via the Internet. The new program, called TNRCC's Air Quality Education On-line, promises to turn air pollution into a more "tangible" topic appropriate for classrooms.

There are two ways to access the information. One way is through the Texas Education Network (TENET), a computer network serving 30,000 public educators in Texas. (Contact Connie Stout at 512/471-2420 for TENET information). Also, the information can be reached directly through the TNRCC's World Wide Web page. The URL, is: http://www.tnrcc.state.tx.us/air/lesson_plans.html

This new program provides a variety of on-line materials: lesson plans, supplementary air pollution information, and activities that use TNRCC-collected air quality data. In the Extensions section at the end of each lesson, teachers are directed to additional computer files that contain background information on air pollution as well as suggested activities using TNRCC air quality data collected from around the state.

The TNRCC's new on-line offerings to Texas educators promise to have an effect on the content of environmental science curriculum statewide. Teachers are given current information about air quality in their communities, as well as activities and lesson plans that allow them to easily incorporate this material into their teaching.

For more information, please contact Kim Sanders at 512/239-2173 or ksanders@smtpgate.tnrcc.state.tx.us

Texas Environmental Awareness Network Announces 1995-1996 "Eye on Earth" Schedule

The Texas Environmental Awareness Network (TEAN) broadcasts a television series called "Eye on Earth," over the Texas Education Agency's (TEA) satellite television network, called T-STAR. The T-Star network is used to communicate information to school officials and to provide training to teachers. The network broadcasts after school during the week. Receivers for these programs are located in schools, regional education service centers, and at local cable companies around the state.

Each episode of "Eye on Earth" contains a taped introduction describing the membership of TEAN, followed by a compilation of environmental news. Several other standard segments are included, along with live interviews with state agency officials, demonstrations of environmental education programs, environmental career information, and other features. Information in the program is targeted toward TAAS objectives, and teachers are given specific information on how to incorporate information given during the program into their classroom activities. The format is interactive, allowing teachers to call in and participate.

The 1995-1996 "Eye on Earth" program will feature the following topics to air at 3:30 p.m. on these dates:

January 17, 1996

"Careers That Make A Difference" . . . Highlights from previous EYE ON EARTH "Career Corner" segments. Discussions on environmental jobs, subjects needed in high school and college, and institutions of higher education that offer environmental degrees. [Karen LeFevre (Texas Department of Transportation, TxDOT), Bill Stout (City of Austin), Greg Bryant (TNRCC), Randy Sowell (Texology), Lisa Remington (Bureau of Economic Geology), Susan Wall (Environmental Education Specialist), Irene Pickhardt (TEA), Jeff Hurt (Railroad Commission of Texas, RCT), and other representatives from TEAN].

February 14, 1996

"The Hows and Whats of Environmental Education?" . . . Members of the environmental education community discuss their broad perspective of environmental education, from classroom instruction to outdoor learning to after-school activities to nature centers. A look at how Senate Bill 1 affects classroom instruction in environmental education. Explores partnerships between government, industry, private citizens and the local schools. Learn how to write a grant, where to look for funds, and why teachers should network with the local community. [Nancy Lockhoof (Texas Agricultural Extension Service), Bill Stout (City of Austin), Greg Bryant (TNRCC), Susan Wall (Environmental Education Specialist), Lynn Spachuk (Environmental Institute of Houston), Irene Pickhardt (TEA), Jeff Hurt (RCT), and other representatives from TEAN].

March 20, 1996

"Wising up to Waste" . . . Examines opportunities for schools to get involved in beautification and cleanup projects including the Great Texas Trash Off, the Great Texas Beach Clean-up, and the Galveston Bay National Estuary Program. Reviews supplementary education materials including Spread the Word, Not the Waste, Giving Nature a Hand, the Galveston Bay National Estuary Program educational materials, and others. Discussion on what to do with household hazardous waste, including hazardous waste found in schools. [Karen LeFevre (TxDOT), M. A. Bengston (Galveston Bay National Estuary Program, GBNEP), Geoff Wool and Roxanne Rouse (General Land Office), Susan Wall (Environmental Education Specialist), Bill Stout (City of Austin), Greg Bryant (TNRCC), Irene Pickhardt (TEA), Jeff Hurt (RCT), and other representatives from TEAN].

April 17, 1996

"Water, Water, Everywhere" . . . Discusses our water resources, point source pollution, non-point source pollution, and water habitats. Review of supplementary curriculum materials from "Blue Thumb Week", Project WET, Aquatic Wild, Get to the Point, and others. A discussion of how to get involved with the Texas River Watch program. [Greg Bryant (TNRCC), John Williams (Lower Colorado River Authority), Danna Ryan (Texas State Soil and Water Conservation Board), M. A. Bengston (GBNEP), Susan Wall (Environmental Education Specialist), Bill Stout (City of Austin), Irene Pickhardt (TEA), and other representatives from TEAN].

May 15, 1996

"Animals, Air and Eco-Affairs" . . . Presents information on air care, both indoors and out, educational materials including the Air Pollution Gremlins, Ozone Action Kit, and health effects related to poor air quality. A look at animal education materials available for the classroom teacher and summer opportunities to take environmental education workshops across the state. [Jeff Hurt (RCT), Greg Bryant (TNRCC), Marilyn Kelso (Texas Department of Health), Lydia Saldana and Bob Murphy (Texas Parks and Wildlife Department), Irene Pickhardt (TEA), and other representatives from TEAN].

Vision Shared at Regional EE Conference

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this country," Meiburg told participants.

On the first day of the conference, teachers met the legislators and other government officials who create or influence EE policies and budgets. Texas officials who talked about EE policy included Andy Sansom, Executive Director of the Texas Parks and Wildlife Department, Land Commissioner Garry Mauro, and TNRCC Chairman Barry McBee.

McBee urged teachers to teach students to think critically about the world around them. "We must equip them to weigh both sides of thorny questions," he said, speaking on the issue of what economic activity produces for society vs. the impact on the environment and natural resources. He also stressed that students need to learn about individual responsibility, and while government can fix some problems by mandating behavior, people should not always turn to government for solutions.

McBee described the TNRCC's Environmental Education Section as a clearinghouse for information on education programs, publications and training available to teachers on environmental issues. The TNRCC's mission is to protect public health and the environment by reducing and preventing pollution, in a way consistent with economic growth. McBee noted, "Accomplishment of both parts of the mission relies on education. Only through sound, balanced environmental education, dedicated to developing students' skills in thinking critically about environmental issues and inspiring them to build on successes of the past to do even better, can we create a prepared workforce, responsible citizens and future leaders for tomorrow's Texas."

Also on the first day of the conference, funding options for local EE projects were presented. The EPA Environmental Education Grant program was described, including the extension of the deadline for the current grant proposal cycle, from October 13 to December 15, 1995. Speakers also talked about creative ways to use funding not specifically dedicated to EE to support projects with an EE component. In the exhibit hall, 83 organizations demonstrated a variety of resource materials for classroom use. The second day focussed on successful environmental education partnerships and a series of round table discussions.

The conference was an effort to expand awareness of EE resources and activities, and to emphasize how partnerships are vital for the progress of environmental education. The theme for the conference, "sharing our vision", meant that the interaction between attendees was essential. Meiburg stated that the exhibit hall was "the most exciting thing I've seen in a long time," and that it offered many new ways of teaching and presenting information to students and the public. In addition to the exhibit booths, the exhibit hall offered presentations by model EPA environmental education grant recipients on a stage decorated to represent a rain forest atmosphere, and winning entries from various student environmental poster contests.

Environmental educators who attended also indicated on evaluation forms that the exhibit hall and "networking potential" were the strongest points of the conference. Many described the conference as inspirational, motivating and encouraging. Several complimented the staff for a well-organized event, while others lauded specific presenters. Those cited as outstanding included New Mexico Land Commissioner Ray Powell, musician John Stark, Dr. Jim Lester of UH-Clear Lake, Barbara Pederson of DuPont, Clayton Harpold of Louisiana, and Michael Patton of Oklahoma.

It was also noted that while the Infomart had a paper recycling program prior to this conference, other waste reduction, reuse and recycling activities were implemented by Infomart vendors at the suggestion of TNRCC staff planning this event. Some of these efforts included the use of cloth napkins and china for conference meals, rather than disposables. The Infomart conference office also discovered an aluminum can recycling effort had been implemented by custodial staff.

Inspired by the conference, officials from Louisiana planned to conduct a statewide EE gathering. EPA and TNRCC staff called the first-ever "Sharing our Vision for Environmental Education" conference a great success.

Environmental Excellence Awarded

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tions, each student is given a Discovery Pack that contains experiments they can perform at home.

Comp. Environmental Program

LCRA, Austin

The Lower Colorado River Authority (LCRA), the eighth largest electric utility in Texas, realizes that teaching today's youth about environmental problems is just as important as tackling policy issues. In 1993, LCRA launched its "In Concert With the Environment" curriculum project to teach middle school students how energy use directly affects the environment. With its "Colorado River Watch Network," LCRA administers the largest citizens water quality monitoring program in Texas.

Education

RGISC, Laredo

Three years ago, Dr. James Earhart began teaching a class called "Special Problems in Biology" at Laredo Community College, which rests on the banks of what is considered the most polluted river in the United States. Once Dr. Earhart's class began its water quality monitoring efforts along the Río Grande River in the fall of 1992, community interest in Laredo and across the border led to the formation of the Río Grande International Study Center (RGISC). Housed on the Laredo Community College campus, the center is a bi-national research and environmental education foundation dedicated to the study of pollution along the Río Grande River.

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Environmental Excellence Awarded by Governor

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Working with its Nuevo Laredo counterpart, the Centro Internaciónal de Estudios del Río Bravo, RGISC has set the pace on both sides of the border not only for environmental education but also for gathering data. For the first time, a central collection point has been established to track sources of pollution in the Río Grande near Laredo and to provide data and proposed solutions to policy makers in the U.S. and Mexico. RGISC's educational format has been duplicated by several high schools.

Media

KRIS-TV, Corpus Christi

For two years, Corpus Christi residents have been getting tips from KRIS-TV Channel 6 and area school children on how to protect the environment on a nightly segment called "Earth Tip." KRIS-TV visits local elementary schools where students' environmental questions are prerecorded on camera. Then, each weekday evening, one question is shown on the air, with chief meteorologist Dale Nelson providing the answer. "Earth Tip" reaches approximately 75,000 residents each night with practical information about what they can do to improve the Bay Area's air, land, and water.

In just the past year, every elementary school in Corpus Christi has participated in the "Earth Tip" project. And, in testimony to Earth Tip's success, schools are regularly requesting that it be filmed on their campus again soon. Many elementary school students in the Corpus Christi area are now assigned to watch "Earth Tip" as a part of their nightly homework assignment.

Youth

Gregory-Portland Junior High Science Clubs, Naturalist Club and SeaStars, Portland

Eighth grade students in the Gregory-Portland Junior High Science Clubs have captured the imagination of their community.

With their school located near the Corpus Christi Bay, 75 science club students work in an ideal setting for environmental studies. Their effort started five years ago with a beach cleanup. Since then, the program has expanded to include many projects such as a paper recycling program, landscaping school grounds, and monitoring water quality.

As part of an impressive partnership with citizens, government, and schools to investigate pollution in the La Quinta Channel, the students conducted extensive water quality monitoring with the help of the TNRCC's Texas Watch program, Occidental Chemical Corporation, and others. Students tested water quality using professional equipment and enlisting the use of a research vessel from the University of Texas Marine Science Institute. The student scientists gathered enough information to determine the channel was in good shape.

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

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